

**COLLIDER ACCELERATOR SHUTDOWN SCHEDULE**

**CHANGEOVER TO POLARIZED PROTONS**

**RESULTS – TUES. MARCH 25, 2003**

R. Zaharatos – March 20, 2003

**SHUTDOWN PERIOD: MONDAY MARCH 24, 2003, 0800 TO 2000HRS**

**AGS – CONTROLLED ACCESS MON. 0900-1300HRS**

**BOOSTER – CONTROLLED ACCESS LOTO FOR BPM WORK – MON.  
1030-1300HRS**

**LINAC – BLIP/HEBT – 0800-1300HRS**

**RHIC TUNNEL RESTRICTED ACCESS PERIOD – MON. 0900HRS  
THOROUGH TUES. 1300HRS. HP surveys required for beam dump and  
injection line.**

**RHIC IR's – RESTRICTED ACCESS AS REQUIRED**

**PRIMAY JOBS:**

JOBS STATUS CODE: C complete IP in-process RS reschedule  
CAN cancelled \* additions

**AGS RING ACCESS JOBS**

- |           |  |
|-----------|--|
| <b>RS</b> | 1. Main Magnet serial number inventory(M. Hemmer)                            |
| <b>RS</b> | 2. Test Ring exhaust fans(AC Grp)  |
| <b>RS</b> | 3. Modify North Conjunction Gate for simultaneous release(Acc. Ctrls.)       |
| <b>RS</b> | 4. Modify North Gate for simultaneous release                                |
| <b>C</b>  | 5 RF Station B10 – change PA tube  |
| <b>C</b>  | 6 AC Dipole – Inspect and take measurements on magnet. Test power amplifier. |
| <b>RS</b> | 7 J-K Vacuum – check K-3 for a bad cable or ion pump                         |
| <b>C</b>  | 8 Inspect C5 and E15 IPM correction windings                                 |

### **AGS EXTERNAL**

- RS** 1 Replace control card for C-17 turbo(may shut down sector)
- RS** 2 Investigate power ref. for cycloconverter(Bannon/Ctrls. Grp.)
- C** 3 Siemens pedestal #2 south – check intermittent loosing of signal for pressure trending(Bannon)
- C** 4 Siemens – install preamp. for accelerometers for ped. #2(Bannon)
- RS** 5 Siemens – repair pedestal #3 hydraulic snubber. (need different model)
- C** 6 Beam Current Transformers – setup for Pol. Protons
- RS** 7 Vacuum(A10/E18/H10 – replace ion pump p.s.'s and H.V. cards
- C** 8 Multipoles water pump – switch to spare pump
- C** 9 911B – Install V202 time line decoder board incdf-911b-rtd11 for PP. Will be used for MCR scope triggers.

### **BOOSTER RING ACCESS JOBS**

- RS** 1. Replace emergency light batteries at plug door
- RS** 2. Check and drain air lines

### **BOOSTER EXTERNAL**

- C** 1 Check Bldg. 914 Pump Hse. spare air compressor unit
- RS** 2 Replace switches on timing decoder board with jumpers.(Ctrls Grp)
- C/IP** 3 Terminate BPM cables(only if machine is off)
- RS** 4 Quad Reference Magnets(2) – remove measure flows(Bldg. 930A)
- RS** 5 Horizontal Quad P.S. – install modified reg. brd(Bannon)
- RS** 6 Remove Reference Magnet measure flows(Bldg. 930A)
- RS** 7 Repair flow switch for DH1-5 P.S.(Bldg. 930UEB)
- C** 8 Replace TLD's on Booster Berm(HP)
- RS** 9 Check Ti pumps: A5, B6a, B6b, C3c, C8, D3b, E8, and F6

### **LINAC TUNNEL**

- RS** 1 Check HEBT 5 SEM
- RS** 2 SNS Laser work(Sikora)
- RS** 3 Install cover plate in HEBT
- C** 4 BLIP Vacuum – perform leak check and make necessary repairs

### **LINAC EXTERNAL**

- C 1 Install new 400w RF Ampl. in LL Drive
- C 2 Repair RF PSI regulator in 930(Water Sys. Grp.)
- C 3 OPPIS – replace water sys.bag filter for pol. Source.

### **NSRL EXTERNAL**

- IP 1 Bldg. 958 heating – check heaters at outdoor A/C units inside berm fence(unit to be replaced)
- C 2 Update firmware in NSRL permit system. (Ctrls. Grp./930A, 930UEB,

### **NSRL TUNNEL**

- C 1. Complete and test light controls for target area(Access Ctrls.)

### **RHIC TUNNEL**

- 1 P.S.'s – repairs(See List)
- C 2 Stochastic Cooling(sect. 2) – install thermocouple equip.(Gassner)
- C 3 Inspect entire tunnel for condition of ice balls.(Zapasek)
- C 4 Injection Kickers – Swap out Blue #4
- IP/RS 5 Roman Pots – Modifications/repairs/testing for administrative controls(sect 1&2) Need 8hrs to complete
- C 6 Telephones to be repaired – Alcove 1009C, ext. 5432 and 7GE1 Gate inside, ext. 8044.
- C 7 BPM's – replace modules in sectors 1, 5, and 12. Troubleshoot a buss problem in alcove 1C(Cerniglia)
- RS 8 Yellow Abort Kicker – change tube for #3 PFN. New tube didn't fire. Changed back to original tube
- C 9 RF Accel. Sys. 2 – change tube
- C 10 Relamp sectors 7 and 11
- C 11 Triplet vibration studies at sect. 6.
- C 12 Cryo – adjust/reduce lead flows in sectors 3 & 4.

### **Vacuum Systems**

- C 1 Replace turbo at yo5-tmp-pi6.1
- C 2 Replace forepump at bi5-tmp-pi21
- C 3 Change oil in forepump yo9-tmp-pi21
- C 4 Replace bad card at bi5-tmp-pi13.1

## **RHIC EXTERNAL**

- C 1 PHOBOS – Maint. on tower fan
- C 2 Vacuum/1002/1012 – download PLC codes
- C 3 STAR – clean tower and strainer
- C 4 RF P.S. YS2/1004A – repair water flow problems
- C 5 PHENIX Water Tower power supply - drained to install flow regulator jumper hose and regulating valve.
- C 6 Change 1000P bag filter.

### **Controls Systems:**

- RS 1. 1004B – remove SIS Scaler board from 4b-ps4 and install in 4b-ps5.
- C 2 1011A – Check 12Volt LED on cfe-11a-ps2.
- C 3 1011C – Replace memory board, backup battery bad

## **RHIC POWER SUPPLIES**

### **Primary Work**

### **Ice Ball Checks**

Ron and Jeff

Start Right away.

### **Ice Ball Repairs**

Rich C and Bob Mac, when Mitch is done he can join in.

Start right away

### **Q6 and Q7 Time Constant changes (32 cards to change, do blue Q6's and Q7's first and re-install then work on yellow Q6's and yellow Q7's)**

Joe, Rich K, Gregg and Tom

Start right away.

### **Lock out blue main dipole p.s. and yellow main dipole p.s.**

Mitch and Fred

Start right away.

## **Blue dh0 DC cable reversal in Link Box**

**Mitch**

Start immediately after the blue main dipole and yellow main dipole p.s.'s are locked out.

## **Blue dhx Fiber Optic Interface Card chip change and labeling**

**Don**

Start right away

Spares Locker-Relabel spare blue dhx fiber optic cards from non-inverting to inverting  
and change fiber optic card table on spares locker

**Don**

Start right away.

## **Replace main power supply contactor and install Timing resolver for Main p.s.'s**

**Carl, Fred and when Jeff is done can help out.**

## **Install new software for mains and testing**

**Carl**

## **Corrector p.s.'s**

**Gene and Brian**

Start right away.

## **Quench Detector – Load new database, test with new ramps**

**George, Johannes, Don, Wing, Carl**

## **Magnet Work**

Ceramic Feedthrough cleaning in sector 3 where ground fault was found.

**Ed Weigand and crew**

## **Spin Rotator Ramping and fixing Icing problem on spin and snake magnet trees**

**Paul, George, Ed Weigand and crew, others**

Start right away. We are not sure at this time how long this will take.

## Snake and Spin Rotator Magnet Locations

1. There are snake magnets located near alcove 3C. Enter through gates 4GE1 or 4GE2 and make a left.
2. There are snake magnets located near alcove 9C. Enter through gate 10GE1 and make a left.
3. There are spin rotator magnets located near alcove 5C. Enter through gate 5GE1 and make a right.
4. There are spin rotator magnets located near alcove 7A. Enter through gate 6GE3 and make a left.
5. There are spin rotator magnets located near alcove 7C. Enter through gate 7GE1 and make a left.
6. There are spin rotator magnets located near alcove 9A. Enter through gate 8GE2 and make a left.

## Secondary Work

### IR Power Supplies

1. bo2-qd1-ps shows an AC phase flt when there is a QLI. If there is time take a look at this.
2. Replace yo9-tq4-ps with a 150A that has good IGBT's and snubbers installed.
3. In 1010A, if there is time we may want to check more tq power supplies for shorted IGBT's by looking at the AC current during a turn ON. Looked at yo9-tq4, 5, 6. yi10-tq4, 5, 6 and bo10-tq4. Only yo9-tq4-ps was shorted.
4. Possibly swap out firing card of y8-dh0-ps. **No one.**
5. Screw in more 3u chassis cards. 1012A done. Half of 1004B done and some of 1002B done.
6. Inspect buildings 1004B, 1006B, 1008B 1012A for broken internal fans on stand alone dynapowers. 1010A and 1002B were checked.
7. Put main p.s. filter material in rear doors of tq racks. **Mitch**
8. Keep an eye on y12-dh0 (OFF problem) and y6-dh0 (large voltage ripple and spike). Nothing to do as of now.
9. Keep an eye on yo4-qf2-ps. It caused a QLI on Sat 3/15/03 at 1:15 and Wed 3/19/03. It looks like the voltage spiked up on 3/15 and the p.s. started to oscillate on 3/19.

### Tunnel Work

1. Tape down floor fans in the tunnel that cool magnet trees.

## QPA Work

1. Start replacing all QPA D connector hardware?? (b2-dh0-qp, yo8-qf8-qp and yo8-qd1-qp done) **No One.**

### **Gamma-T Power Supplies**

Go into alcoves and tighten AC connections of Gamma-T's in 3C, 7A, 7C, 9A. **No One.**

### **Snake and Spin rotator p.s. Work**

1. Label the rest of the circuit breakers. **Someone.**

### **Quench Detector**

Go around and check quench detector fans are working - **Dan O**